

It would seem, then, from the foregoing, that in the distribution of the plant groups in this great mountain range, we have not, primarily, a problem of altitude. For the altitude *per se* can scarcely be of much importance as a determinant, for by it no greatly changed conditions of atmospheric pressure are reached, our greatest elevation being nowhere more than three thousand six hundred feet. It is cooler, however, at the ridge than at the coast and this may have some effect on the precipitation, and, secondarily, of course, on the plants.

But the Maestra rises more or less abruptly from the level part of Cuba, and furnishes a great barrier of from three to eight thousand feet in height and about sixty miles long. Its altitude thus at once becomes the all-important factor in regulating the amount of rainfall that gets over to the leeward side of the range. This action of the ridge in monopolizing the better part of the moisture from the trade-wind is responsible for the comparative dryness of the whole southern exposure. The division of the area into regions coming under the influence of this wind and those lacking it, is, therefore, not such an arbitrary proceeding as one might suppose who had not seen this marked example of the importance of the rainfall in determining the general characteristics of any given area. In the variation of the plant associations cited under the discussion of the southern slope other factors must be taken into consideration. But these are almost wholly local in their effect and are not therefore comparable to a factor of the scope and importance of this trade-wind.

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A NEW BLACKBERRY FROM THE VICINITY OF PHILADELPHIA AND WASHINGTON

BY WILLIAM H. BLANCHARD

The blackberries in the vicinity of Philadelphia and Washington were studied by the writer in July, 1906. The species found are not numerous. *Rubus hispidus* L. and *R. cuneifolius* Pursh occur, but are not common generally, though *R. cuneifolius* is

abundant on the sandy plains of southern New Jersey; *R. alleghaniensis* Porter (*R. nigrobaccus* Bailey), the common blackberry of New England, is rare; but there are three which are common. Perhaps the most abundant of all is the common dewberry *R. procumbens* Muhl. The southern high blackberry, *R. Andrewsianus* Blanchard, which is common from southern Connecticut and northern New Jersey to North Carolina, is abundant and a prolific bearer. The third in abundance is an undescribed species of the *frondosus* class which seems to have been unnoticed by botanists. Though it often makes a very large plant, it is seldom as tall as *R. Andrewsianus* and in general appearance is a sort of "half high" or intermediate between *R. procumbens* and *R. Andrewsianus*. It may be named and described as

***Rubus philadelphicus* sp. nov.**

Large, round-stemmed, erect-recurving plants, pubescent and glandless, lightly armed, fruit-branches leafy, bearing a fine crop of large, early, much esteemed fruit.

New canes. — Stems stout, hard, erect at first, then recurved, 2 to 4 feet high, 4 to 8 feet long, greenish, glabrous and glandless, terete or nearly so, much branched, the branches recurved and the end touching the ground, or prostrate, few noticed tipping. Prickles few, 4 or 5 to the inch of stem, 0.125 to 0.184 inches long, slender, strong, set at a right angle to the stem and in lines over the pentagonal pith. Leaves 5-foliolate, large ones 9 inches long by inches wide, rather thick, yellow-green, with many appressed hairs, but nearly smooth on the upper surface, slightly whiter, with much pubescence, and velvety below. Leaflets broad, often only the middle ones noticeably stalked, taper-pointed, singly or slightly doubly serrate-dentate, otherwise entire; middle leaflet broadly ovate, rounded at the base or slightly cordate, the side leaflets broadly oval or rhomboidal, wide-cuneate, and the basal ones similar in shape but smaller. Petiole and petiolules stout, grooved, villose-pubescent, glandless; prickles rather numerous, stout and hooked; the petiole of the middle leaflet less than 1 inch long, the side leaflets short-stalked and the basal ones sessile.

Old canes. — Stems hard, prickles intact. Second year's growth consisting entirely of leafy fruit-branches, from 6 to 12 inches long, tipped with inflorescence, the branches graded regularly in length, one from the axil of each old leaf. Axis of branch some-

what zigzag, angled, stout, villose-pubescent, glandless; prickles not numerous, small, stout, and hooked. Leaves trifoliolate, the upper unifoliolate, thickish, of moderate size or small, coarsely dentate, very velvety on the lower surface and nearly smooth above; leaflets broad; unifoliolate leaves very broad and often slightly incised or deeply 2-incised. Inflorescence on a short axis, cymose or cymose-corymbose; pedicels very pubescent, with rarely a few stalked glands, 4 to 8 set at a small angle or erect, and an erect one from the axil of each lower leaf, those composing the cyme subtended by broad unifoliolate leaves or some without subtending leaves. Flowers not seen. Fruit ripening before the middle of July, nearly globose, about 0.5 inch in diameter. Very productive, flavor fine. Ripe two weeks earlier than *R. Andrewsianus*.

This is a very abundant plant in the neighborhood of Philadelphia and Lancaster, Pennsylvania, and quite as abundant around Washington, D. C.

This species is closely related to *R. frondosus* Bigelow and needs careful study. It is evidently wide-spread. There was no specimen of it in the National Herbarium at Washington. There was, however, one specimen at the Academy of Sciences of Philadelphia, collected recently by Dr. Ida A. Keller.

WESTMINSTER, VERMONT.

MELANOSPORA PARASITICA

BY GUY WEST WILSON

This interesting species was collected in fair abundance in the vicinity of Van Cortlandt Park, New York City, the present season on *Isaria farinosa* (Dicks.) Fries, the conidial stage of *Cordyceps militaris* (L.) Sacc. Saccardo's *Sylloge Fungorum* contains the descriptions of two species of ascomycetous fungi which occur upon this host. A comparison of the descriptions led to the discovery that the characters given are insufficient to warrant the separation of these species. The first mention of this fungus is by L. Tulasne who described it as *Sphaeronema parasitica** on *Isaria crassa* from France. A few years later the brothers

* Ann. Sci. Nat. IV. 8: 40, note 2. 1857.